

Shown is the 3'UTR of the human IL1B sequence from accession number M15330.

* Represents the stop codon.

*AGAGAGCTGTACCCAGAGAGTCCTGTGCTGAATGTGGACTCAATCCCTAG
GGCTGGCAGAAAAGGGAACAGAAAGGTTTTTGAGTACGGCTATAGCCTGGAC
TTTCCTGTTGTCTACACCAATGCCCCAACTGCCCTGCCCTTAGGGTAGTGCTAA
GAGGATCTCCTGTCCATCAGCCAGGACAGTCAGCTCTCTCCTTTCAGGGCC
AATCCCAGCCCTTTTGTGAGCCAGGCCCTCTCTCACCTCTCCTACTCACT
TAAAGCCCGCTGACAGAAACCAACGCCACATTTGGTTCTAAGAAACCCCTC
TGTCATTGGCTCCACATTCTGATGAGCAACCGCTTCCCT**ATTTATTATT**
TATTTGTTTGTGTTTATTCAATTGGTCTAATTTATTCAAAGGGGCAAG
AAGTAGCAGTGTCTGTAAAAGAGCCCTAGTTTTTAATAGCTATGGAATCAAT
TCAATTTGGACTGGTGTGCTCTCTTTAAATCAAGTCCTTTAAATTAAGACTG
AAAATATATAAGCTCAGATT**ATTTAAATGGGAATATTTA**TAAATGAGCAAA
TATCATACTGTTCAATGGTCTCTGAAATAAACTTCTCTGAAG

FIGURE 1

ATGGCTTCCCT**ATTTATTTATTTATTT**TTGTTGTCCACCT
|||||
GGATACCGAAGGA**TAAATAAATAAATAA**CAACACAGTT

FIGURE 2

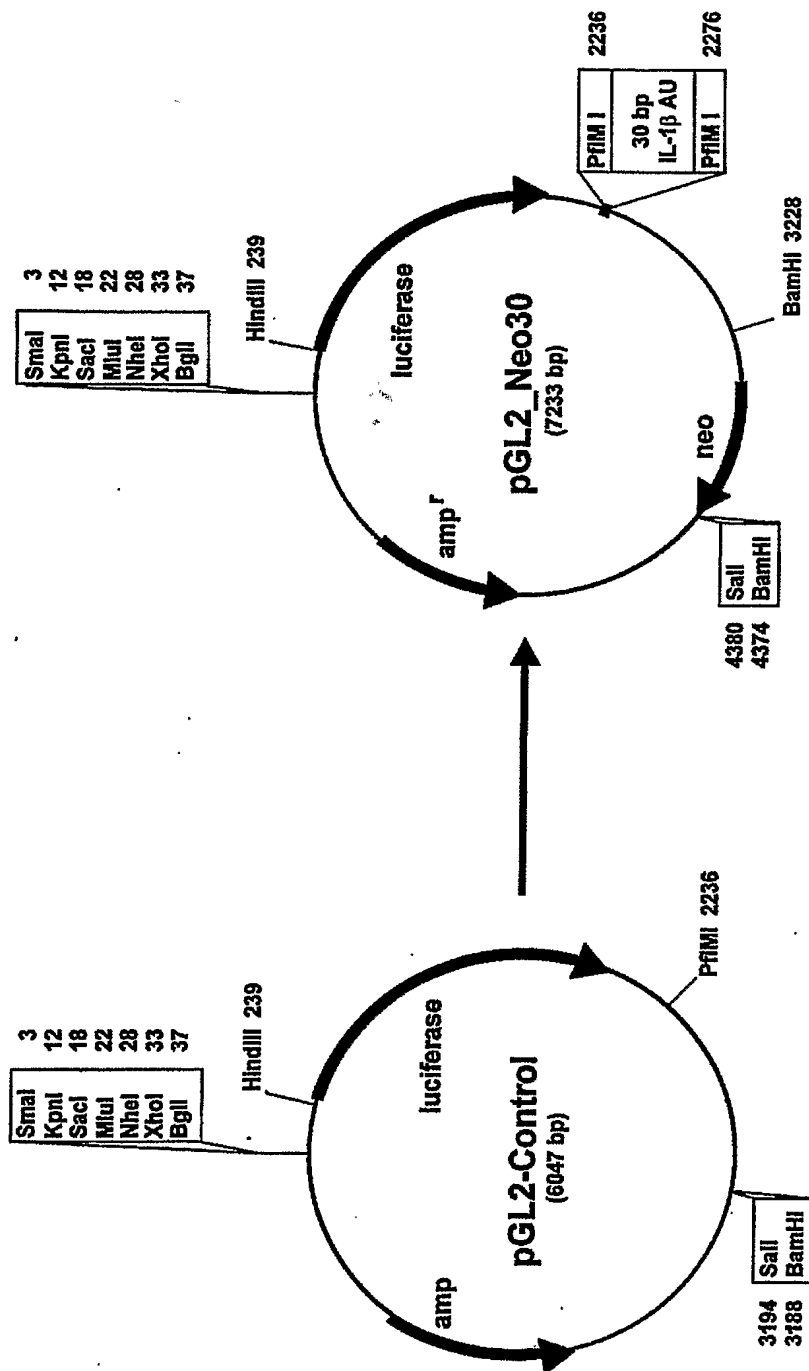


FIGURE 3A

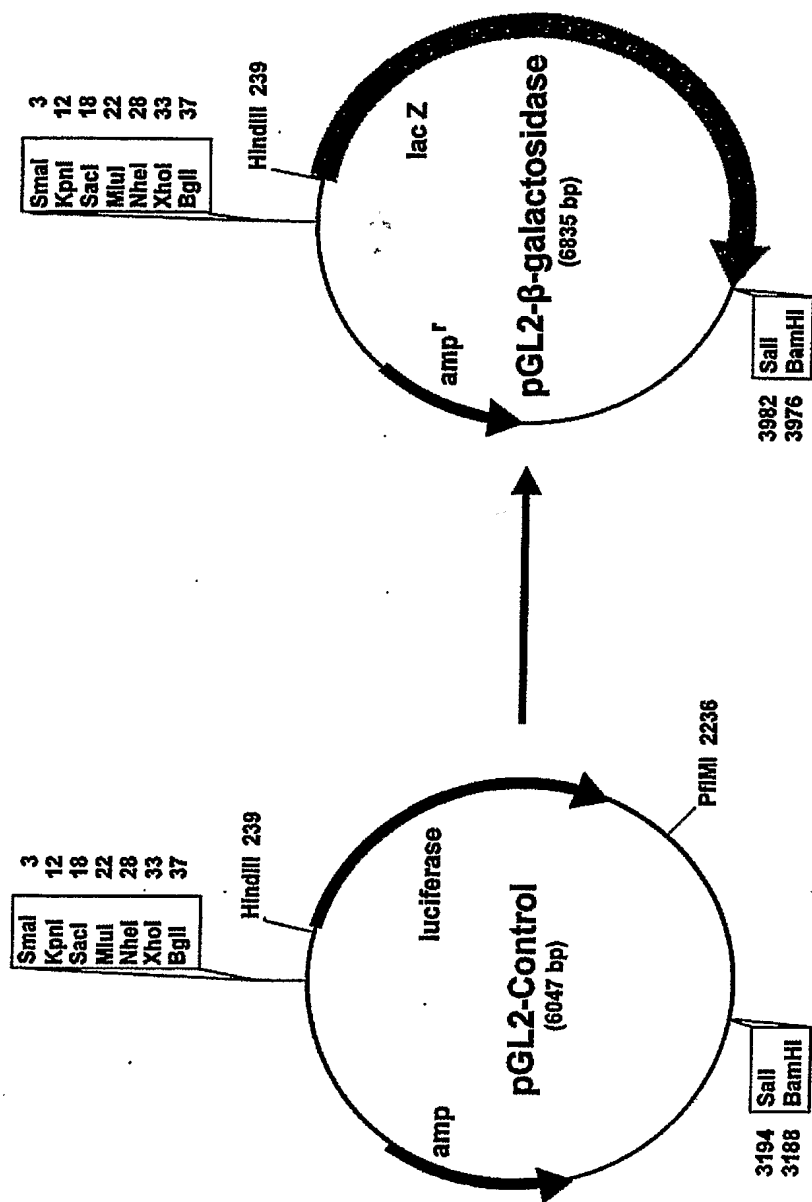


FIGURE 3 B

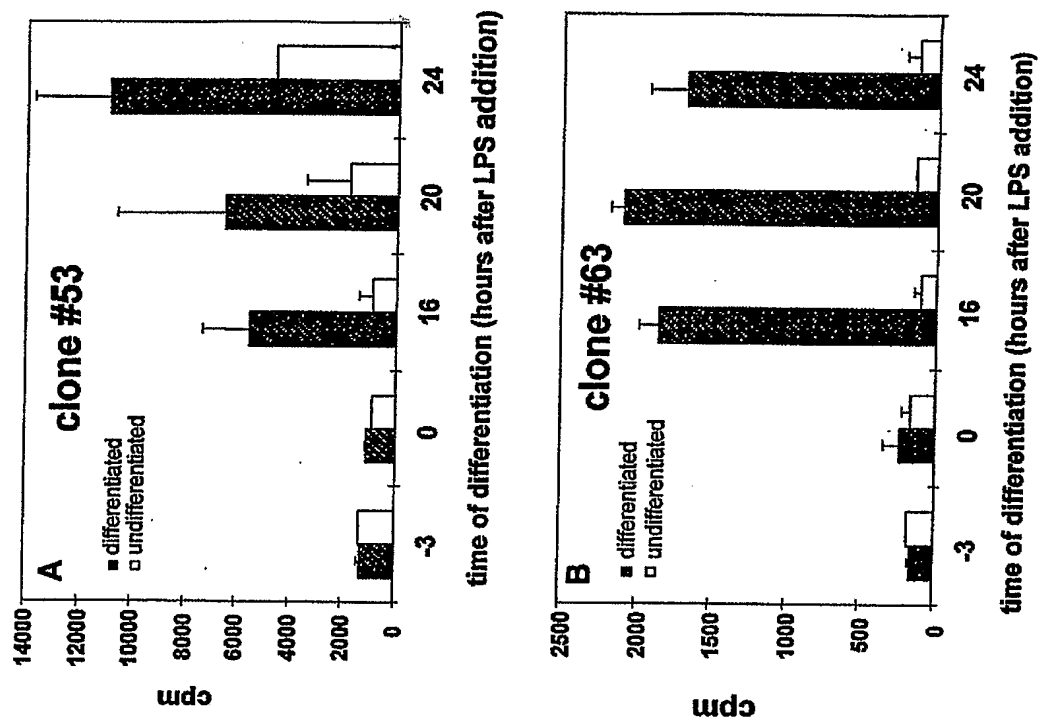


FIGURE 4

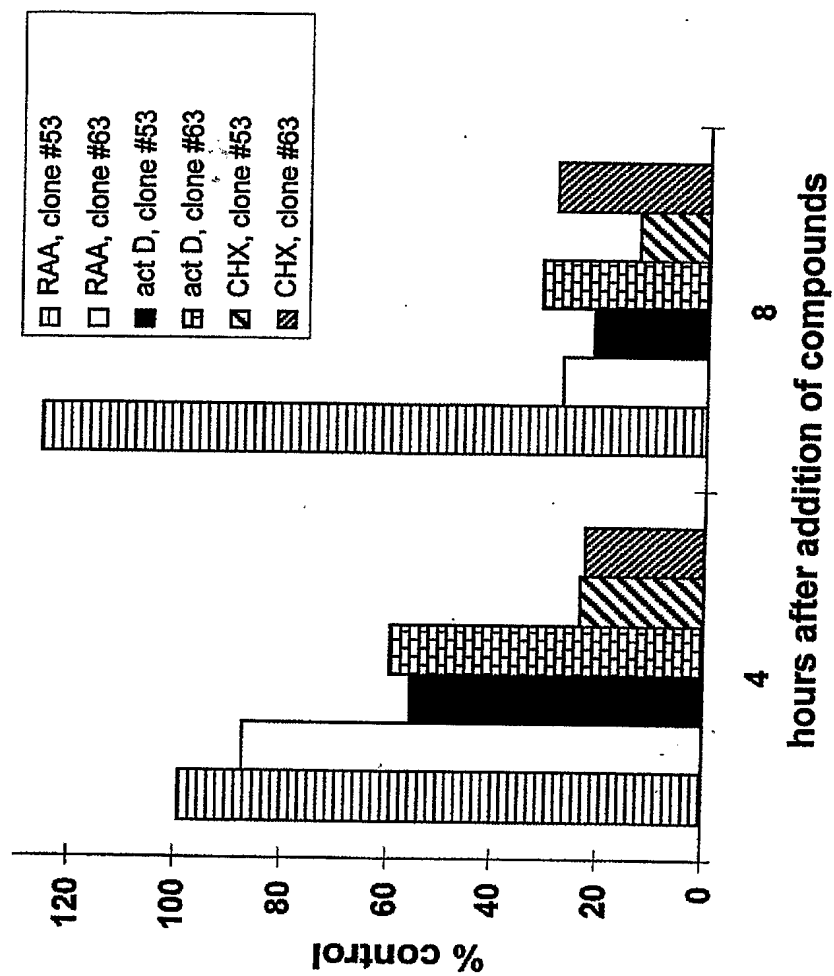


FIGURE 5

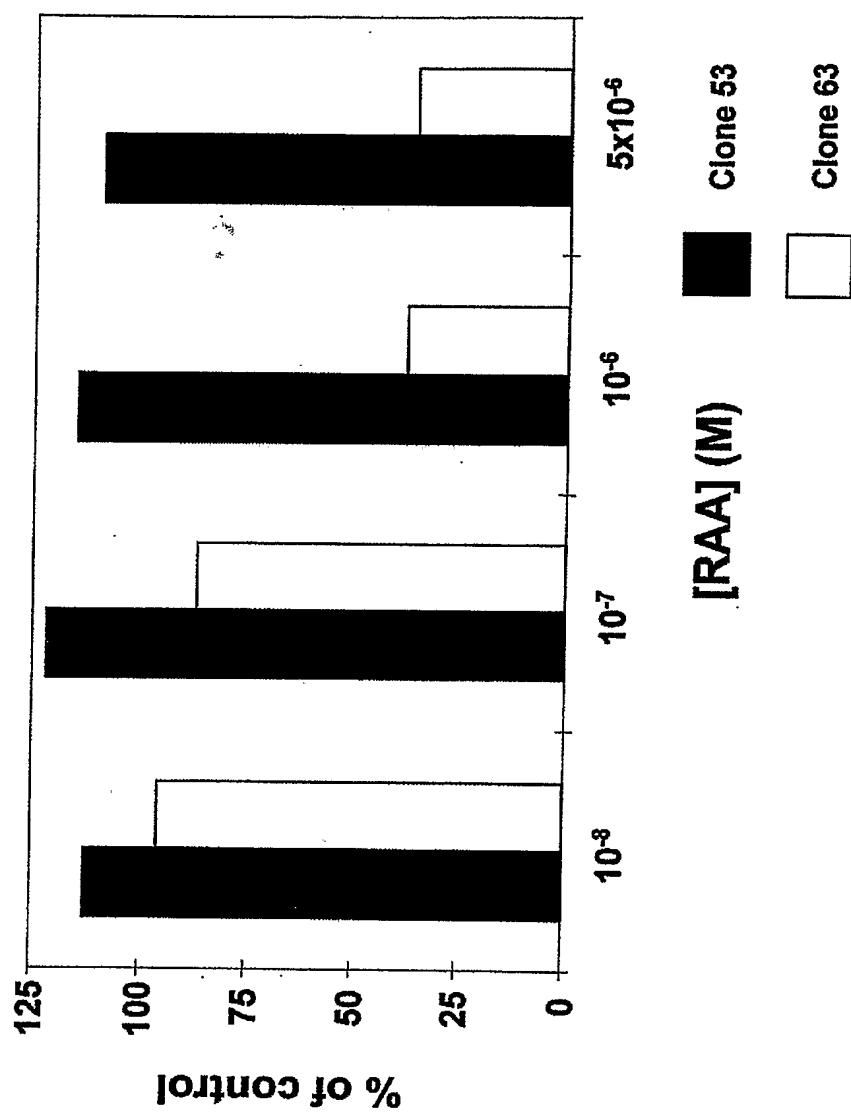


FIGURE 6

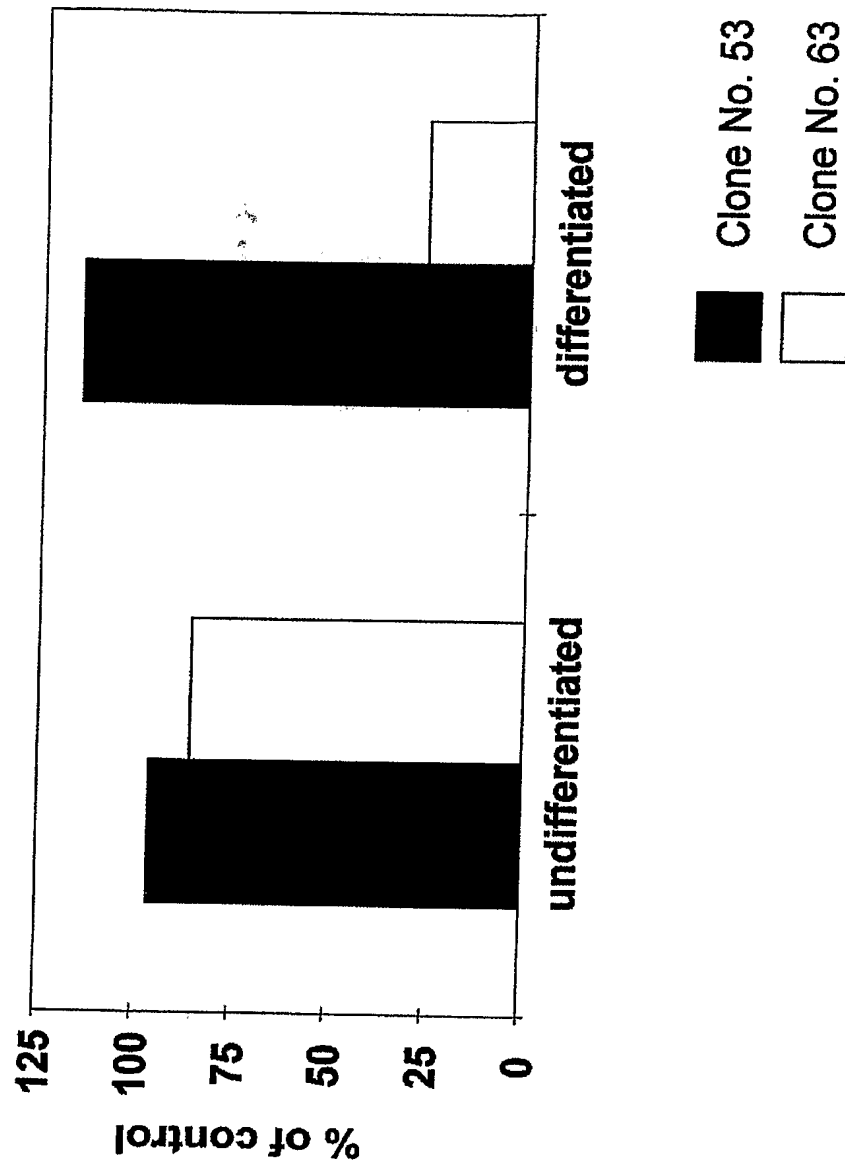


FIGURE 7

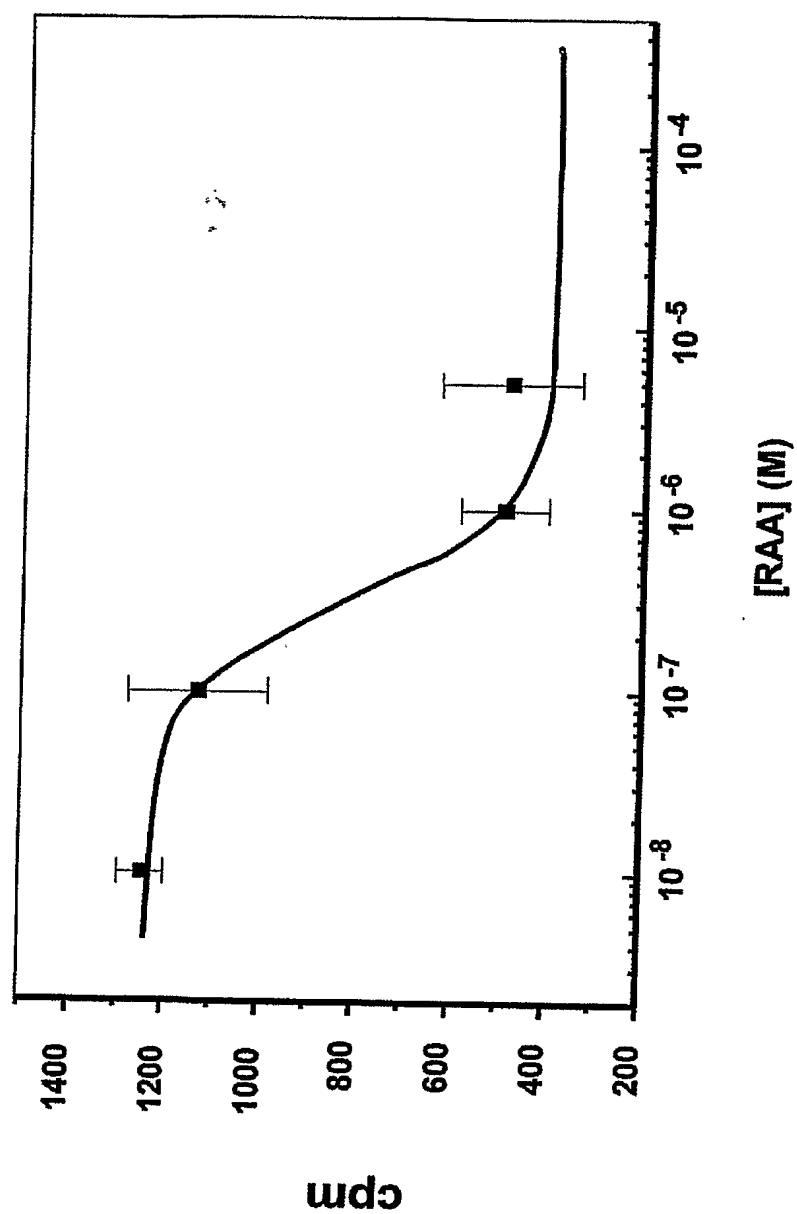



FIGURE 8

APP construct:  **■ AUUUA {Bold/Underline}**
★ potential polyA signal sequence {Bold/Italics}
Restriction Sites {Bold}

	NotI	
1	GGGCGCGCA CAGCAGCCTC TGAAGTTGGA CAGCAAAACC ATTGCTTCAC TACCCATCGG TGTCCATTAA TAGAATAATG TGGGAAGAAA CAAACCCGTT	
101	TTATGATTAA CTCATTATCG CCTTTTGACA GGTGTGCTGT AACACAAGTA GATGCTGAA CTTCGAATTAA TCCACACATC AGPRAATGAT TCTATCTCTC	
201	TTTACATTTT GGTCTCTATA CTACATTATT AATGGGTTTT GTGTACTGTA AAGAAATTAG CTGTATCAAA CTAGTGCATG AATAGATTCT CTCCTGATTAA	
301	TTTATCACAT AGCCCCCTAG CCAGTTGTAT ATTATTCCTG TGGTTTGTGA CCCAATTAAG TCCTACTTTA CATATGCTTT AGAATTCGAT GGGGGATGCT	
401	TCATGTGAC GTGGGAGTTC AGTGTCTCT CTGCGCTAAG TATTCCTTTC CTGATCACTA TGCATTTTAA AGTTAAACAT TTTTAAAGTAT TTCAGATGCT	
501	TTAGAGAGAT TTTTTTTTCC ATGACTGCAT TTACTGTAC AGATTGCTGC TTCTGCTATA TTGTGTATAT AGGAATAAG AGGATACACA CGTTTGTTC	
601	TTGCTGCTCG TTTTATGTGC ACACATTAGG CATTGAGACT TCAGCTTTT CTTTTTTTGT CCAGTATCT TTGGTCTTT GATTAAGAAA AGATCCCTG	
701	TTTCAATTGTA GCACTTTAC GGGCGGGTG GGGAGGGTG CTCGTGCTGT CTTCATTAC CAAGAATCT CCAAAACAAT TTTCTGCAGG ATGATTGTAC	
801	AGAATCATG CTTATGACAT GATCGCTTTC TACACTGTAT TACATAAATA AATTAATAA AATAACCCG GSCAAGACTT TTCTTTGAAG GATGACTACA	
901	GACATTAAAT AATCGAAGTA ATTTTGGGTG GGGAGAGAG GCAGATTCAA TTTTCTTTAA CCAGTCTGAA GTTTCATTAA TGTATACAAA GAAGATGAAA	
1001	ATGGAAGTGG CAATATAAG GGTAGAGAA GGCATGCCCT GACAACCCCT TCTTTTAA TGTGTCTTCA ATTGTATATA AATGGTCTTT TCATGTAGCG	
1101	GCGGC	NotI

FIGURE 9 Length: 1105 bp

stop codon {**Bold/Italics/Underline**}

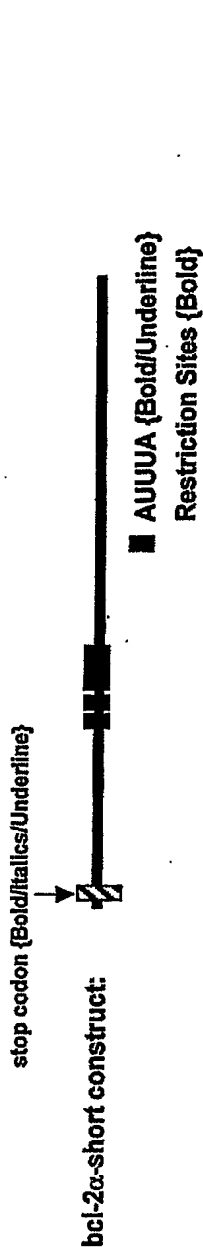


■ AUUUA {**Bold/Underline**}
Restriction Sites {**Bold**}

	NotI
1	GGGGGGCTG <u>AGTCAACAT</u> GCCTGCCCCA ACAAATATG CAAAGGTTT ACTAAAGCAG TAGAATATAT ATGCATTGTC AGTGATGTAC CATGAACAA
101	AGCTGAGGC TGTTTAAGAA AAAATATACAC ACATATTAAC ATCACACACA CAGACAGACA CACACACACA CACACATTA CAGTCTTCAG GORAAAGTC
201	GAATCAGCTA <u>TTTACTGCCA</u> AAGGGAATA <u>TCATTTATTT</u> TTTACATAT TAAGAAAAA AGATTATTT <u>ATTTAAGACA</u> GTCCATCAAA AACTCCTGTC
301	TTTGGAAATC CGACCACTAA TTGCCAAGCA CGCTTCGTG TGGCTCCACC TGGATCTCT GTGCTGTAA ACATAGATT CTTTCCANG TTGTTGSCG
401	GATCACCATC TGAAGAGCAG ACGGATGGAA AAAGGACCTG ATCATTTGGG AAGCTGGCT TCTGGCTGCT GGAGGTGGG GAGAAGGTGT TCTTTACATT
501	GCAATTTCTT GCCCTGGGG CTGTGATATT AACAGAGGGA GGGTTCCTGT GGGGGGAAGT CCATGCCCTCC CTGGCTGTA GAAGAGACTC TTTGCATATG
601	ACTCACATGA TGCATACCTG GTGGGAGGAA AAGAGTTGGG AACTTCAGAT GGACCTASTA CCCACTGAGA TTTCACGCGC GAAGGACAGC GATGGGAAA
701	ATGCCCCTAA ATCATAGGA AGTATTTTTT TAAGCTACCA ATTGTGCCGA GAAAGCAAT TTAGCAATTT <u>ATACAATATC</u> ATCCAGTACC TTAAGCCCCG
801	ATTGTGTATA TTCATATATT TTGGATACGC ACCCCCCAAC TCCCAATCT GGCCTGTCT GAGTAAGAAA CAGATCTCTC TGGAACTTGA GGAAGTGCGG
901	CGGC
	NotI

Length: 904 bp

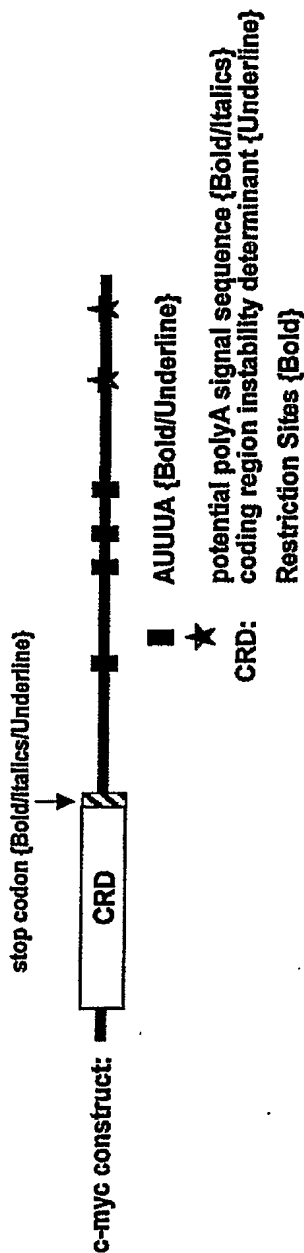
FIGURE 10



	NotI
1	GCGCGCGCTG <u>AGTCA</u> ACAT GCCTGCCCA AACAAATATG CAAAGGTTT
51	ACTAAGCAG TAGAATAAT ATGCATTGTC AGTGATGTAC CATGAACAA
101	AGCTGCAGGC TGTTTAGAA AAAATACAC ACATATAAAC ATCACACACA
151	CAGACAGACA CACACACACA CAACAATTAA CAGTCTTCAG GCAAAACGTC
201	GAATCAGCTA <u>TTTACTGCCA</u> AAGGGAATA TCATTATTTT TTTACATTAT
251	TAAGAAAAAA AGATTATTTT <u>ATTAA</u> GACA GTCCCATCAA AACCTCTGTC
301	TTTGGAAATC CGACCACTAA TTGCCRAGA CCGCTTCGTG TGGCTCCACC
351	TGGATGTTCT GTGCCGTGTA ACATAGATTC GCTTTCCATG TTGTTGGCOG
401	GATCACCATC TGAAGACAG ACGGATGGA AAAGGACCTG ATCATGSGGG
451	AAGCTGGCTT TCTGGCTGCT GGAGCTGGG GAGAAGTGT TCATTCACTT
501	GCATTTCITT GCGCTGGGG CTGTGATATT AACAGAGGA GGGTTCCTGT
551	GGGGGAGT CCATGCCCTC CTGGCTGAA GAAGAGCTC TTTCATATG
601	ACTCACATGA TGCATACCTG GTGGAGGAA AAGAGTTGG AACCTCAGAT
651	GGACCTAGTA CCACCTGAGA TTTCCACGCC GAAGGACAGC GATGGGAAA
701	ATGGGCGCC
	NotI

Length: 710 bp

FIGURE 11



Length: 688 bp

NotI	
1	GCAGCCGCTC GAGCTTTT TGCCCTGCGT GACCAGATCC CGGAGTTGGA
51	AAACAAATGAA AAGGCCCCCA AGGTAGTTAT CCTTAAAAA GCCACAGCAT
101	ACATCCTGTC CGTCCAGCA GAGGAGCAA AGCTCATTTC TGAAGAGGAC
151	TTGTTGGGGA AACGACGAGA ACAGTTGAAA CACAACTTG AACAGCTAGG
201	GACTCTTGT GCGTAGGAA AGTAAGGA ACCGATTCCT TCTGACAGAA
251	ATGTCCTGAG CAATCACCTA TGAATTGTT TCAATGCGT GATCAATGCG
301	AACCTCACAA CCTTGGCTGA GTCITGAGAC TGAAGAGATT AGCCATAATG
351	TAACTGCGT CAATTTGAC TTTGGGCATA AAAGAAGCTT TTTANGCTTA
401	CCATCTTTT TTTTCTTTA ACAGATTGCT ATTATAGCAT TGTTTTAAA
451	AAATTTAAG ATTACACAA TGTTCCTCTG TAAATATGCG CATTAAATGT
501	AAATAACTTT AATAAACGCT TTATAGCAGT TACACAGAAAT TTCATATCCTA
551	GTATATAGTA CCTAGTATTA TAGGTACTAT AAACCCATA TTTTITTTAT
601	TAGTACATT TTGCTTTTA AGTTGATTT TTTTCTATTG TTTTATAGAA
651	AAATAAATA ACTGGCAAT ATATCATTGA GGCATATG
	NdeI

FIGURE 12

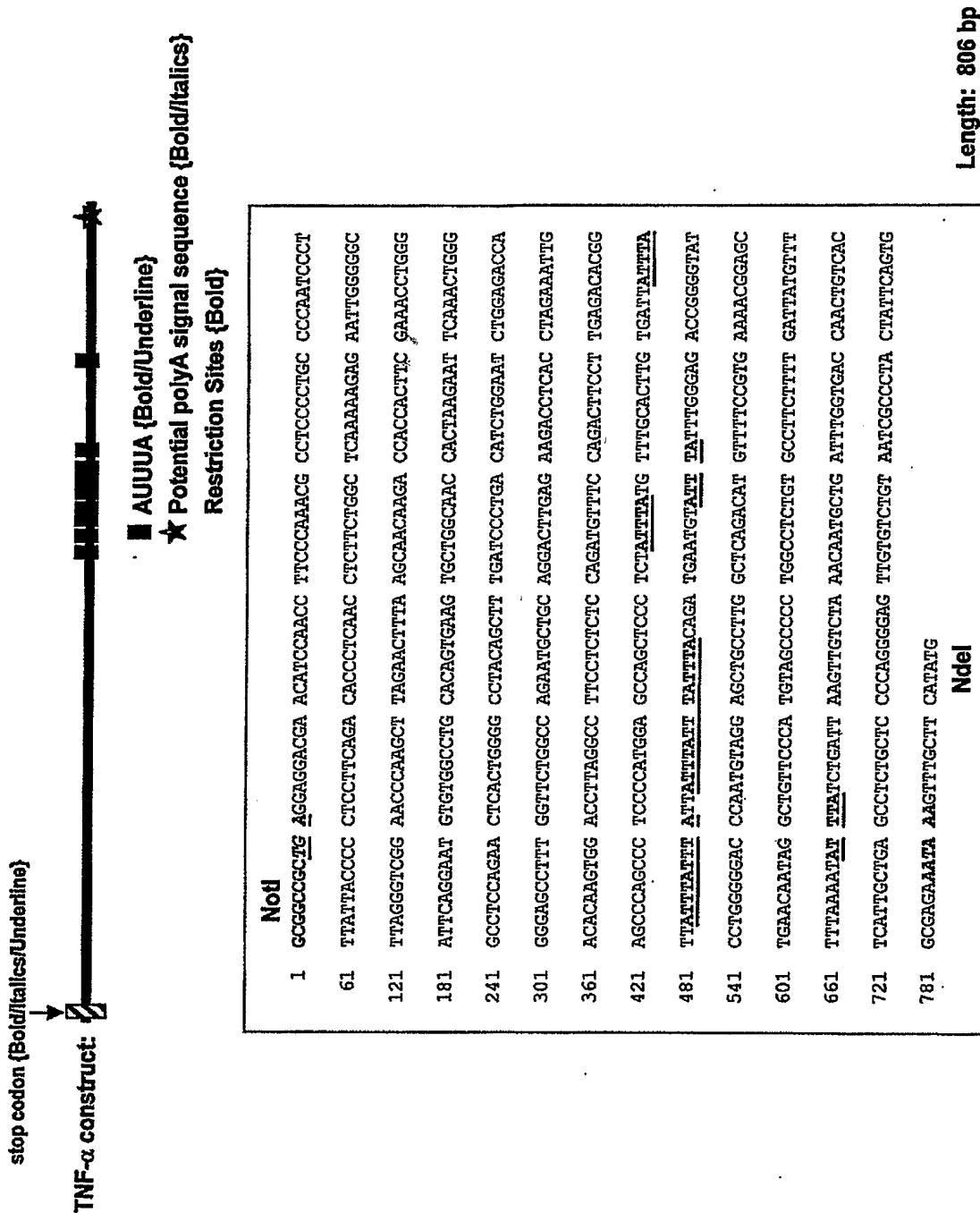
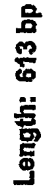


FIGURE 13



	Ndel	
1	GGGCGCGCTA <u>AGAGAGCTG</u> TACCACAGA GTCCGTGTGT GAATGTGAC	
51	TCAATCCCTA GGGCTGCCAG AAGGGAACA GAAAGTTTT TGAGTAGCGC	
101	TATAGCCTGG ACTTTCCTGT TGTCTACACC AATGCCAAC TGCCTGCCTT	
151	AGGTAGTGC TAAGAGGATC TCCTGTCCAT CAGCAGGAC AGTCAGCTCT	
201	CTCCTTTAC GSCCAATCCC CAGCCCTTT GTTGAGCCAG GCCTCTCTCA	
251	CCTCTCCTAC TCACCTAAG CCGCGCTGAC AGAACCACG GCCACATTGG	
301	GTTCTAAGAA ACCCTCTGTC ATTGCGTCCC ACATTCTGAT GAGCAACCGC	
351	TTCCCTATTT <u>ATTTAATTAT</u> TTCTTTGTTT GTTTTATTC TTTGCTATAA	
401	<u>TTATTC</u> AAG GGGGCRAGAA GTAGACTGT CTGTAAAAGA GCCTAGTTTT	
451	TAATAGCTAT GGAATCAATT CAATTGGAC TGGTGTGCTC TCTTTAAATC	
501	AGTCTCTTTA ATTAGACTG AAATATATA AGCTCAGATT <u>ATTTAAATGG</u>	
551	GAATA TTTAT AAATGAGCAA ATATCATACT GTTCAATGGT TCTGAATAAA	
601	ACTTCACCAT ATG	
	Ndel	

FIGURE 14

VEGF construct:

■ AUUUA {Bold/Underline}

★ Potential polyA signal sequence {Bold/Italics}

Restriction Sites {Bold}

NotI

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1  GCGGCCGCAT TCGTGTGCTT TGGGGATTC CTCCACATGC TGCACGGCA TCTCGCCCC AGGGGCACTG CTGGAGAGAT TCAGAGCCCT GGGCGGCTT
101 CGCTTACTCT CACCTGCTTC TGAGTTGCCC AGGAGGCCAC TGGCAGATGT CCGGGCGAAG AGAAGAGACA CATGTGTGGA AGAAGCAGCC CATGACAGCT
201 CCCCTTCCTG GGAATCGGCC TCATCCTCTT CCTGCTCCGC TTCTGGGGT GCAGCCTAAA AGGACCTATG TCCTCACCAC ATTGAAACCA CTAGTTCTGT
301 CCCCCCAGGA GACCTGGTGG TGTGTGTGTG AGTGGTTGAC CTTCCTCCAT CCCCTGGTCC TTCCCTCCGC ACAGAGAGAC AGGSCAGGAT
401 CCACGTGCCC ATTGTGGAGG CAGAGAAAG AGAAGTCTT TTATATACGG TACTTATTTA ATATCCCTTT TTAATTAGAA ATTAATAACAG TTAATTTAAT
501 TAAAGAGTAG GGTTTTTTTT CAGTATCTT GGTAAATATT TAATTCAAC TATTATGAG ATGTATCTTT TGCTCTCTCT TGCTCTCTTA TTGTACCGG
601 TTTTGTATTA TAAATTCAT GTTCCCATC TCCTCTCCC TGATCGGTA CAGTCACTAG CTTATCTTGA ACAGATATTT AATTGTGCTA ACATCAGCT
701 CTGCCCTCCC CGATCCCCCTG GCTCCCCAGC ACACATTCCT TTGAATAAAG GTTCAATPAT ACATCTACAT ACTATATATA TATATTGGC AACTTGTATT
801 TGTGTGTATA TATATATATA TATGTTTATG TATATATCTG ATTCTGATTA AATAGACATT GCTATTCTGT TTTTATATATG TAAATACAAA ACAGAAAAA
901 ATAGAGAAAT CTACATACTA AATCTCTCTC CTTTTTAAAT TTTATATATT GTTATCAATTT ATTATTTGCT GCTACTCTTT ATCCCTAATA ATTGTGGGA
1001 AAGATATATA ACATCAGCTC TTGTCTCTCA GTGCAGTTT TCGAGATATT CCGTAGTACA TATTATTTTT TAAACAACGA CAAGAAAAA CAGAACATAT
1101 G

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NdeI

Length: 1101 bp

FIGURE 15

VEGF 3'UTR hypoxia domain construct: 

■ AUUUA {Bold/Underline}
Restriction Sites {Bold}

	NotI
1	GCGGCCGCAT TCCTGTAGAC ACACCCACCC ACATACATAC <u>ATTATATATAT</u>
51	ATATATATTA TATATATATA AAAATAAATA TCTCTATTTT ATATATATAA
101	AATATATATA TTCTTTTTTT AAATTAACAG TGCTAATGTT ATTGGTGTCT
151	TCACTGGATG AACATATG
	NdeI

Length: 168 bp

FIGURE 16

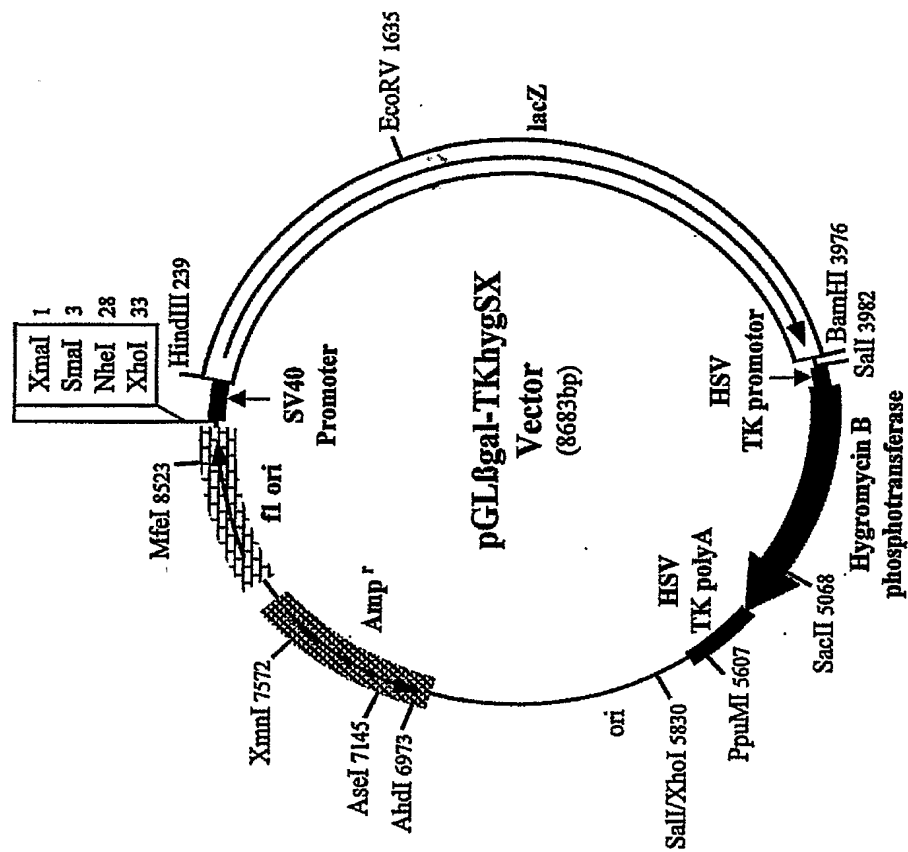


FIGURE 17